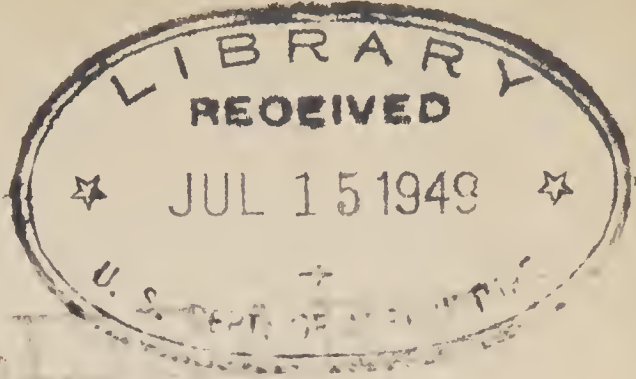


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1
B 52C
cgo. 6



REYNOLDS LIBRARY

Issued June 29, 1911.

U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY—Circular No. 80
HENRY W. HENSHAW, CHIEF OF BUREAU

PROGRESS OF GAME PROTECTION
IN 1910

BY
T. S. PALMER AND HENRY OLDYS
Assistants, Biological Survey

CONTENTS.

	Page.
Introduction.....	5
Condition of game.....	6
Big game.....	6
Game birds.....	13
National parks and game refuges.....	16
National bird reservations.....	18
State game preserves.....	19
Private game preserves.....	20
Introduction of game birds.....	20
Pheasants and partridges.....	20
Other game birds.....	22
State game farms.....	22
Importation of foreign birds and mammals.....	23
Nongame birds.....	24
Conventions.....	25
Administration and enforcement of game laws.....	26
Legislation.....	29
Decisions of the courts.....	31
Chronological record of game protection for 1910.....	35

ILLUSTRATION.

FIG. 1.—Map showing States which had big game hunting in 1910.....	7
[Cir. 80]	3

United States Department of Agriculture,

BUREAU OF BIOLOGICAL SURVEY—Circular No. 80.

HENRY W. HENSHAW, Chief of Bureau.

PROGRESS OF GAME PROTECTION IN 1910.¹

By T. S. PALMER and HENRY OLDYS,
Assistants, Biological Survey.

INTRODUCTION.

The year 1910 was marked by steady progress in the movement for the increase of game by propagation and the establishment of game preserves. The demand for game birds for restocking was, as usual, much larger than the supply. Comparatively few quail were available and the popularity of the Hungarian partridge, despite an increased importation, shows a tendency to decline somewhat, on account of the high cost of the birds and the uncertainty as to their successful acclimatization. A much larger number of pheasants than usual was imported from abroad, and many birds were reared on State and private preserves. In general the game wintered well, except that the deer in Alaska suffered severely on account of deep snows and the elk in Wyoming were threatened with starvation, which was averted by an unexpected thaw early in March. The summer was marked by severe drought, particularly in the northern plains and Rocky Mountain region and other parts of the West. In consequence forest fires, the most extended and destructive ever known, occurred in Montana, Idaho, Oregon, and some parts of California. How great a destruction of game was caused by the conflagration is unknown, but undoubtedly both deer and grouse suffered severely in certain localities, and game of all kinds was temporarily driven out from the burned areas. In Vermont, to avoid danger of fire in the dry woods, the governor postponed the deer season one week.

¹ For the last eight years the department has issued a brief annual review of the more important matters in game protection. These reviews have appeared in the Yearbooks as follows: 1902, pp. 733-734; 1903, pp. 566-569; 1904, pp. 603-610; 1905, pp. 611-617; 1906, pp. 533-540; 1907, pp. 590-597; 1908, pp. 580-593; 1909, Circular No. 73, Biological Survey, pp. 1-19. The object of the series is to place on record a condensed statement showing what has been accomplished in protecting wild life, introducing new species, or increasing game in public and private preserves.

Wild fowl shooting was affected in several localities by drought and in Utah and locally in Colorado and California by diseases diagnosed as cholera and coccidiosis. In Michigan the light fall of snow preceding the opening of the deer season furnished the best hunting known for years and the northern woods were consequently filled with thousands of hunters. As might have been expected, the record of hunting casualties was unusually high. The number of fatal accidents, more than 150, very largely exceeded that of any previous year. The increased popularity of the automobile in hunting was very marked; and the possibility of utilizing the aeroplane in duck shooting was demonstrated by an experiment in southern California in November.

In the administration of the game laws important changes were made in California, Louisiana, and South Carolina. Kansas was handicapped, as in the previous year, through failure of the necessary appropriation; and in North Carolina the division of responsibility between the Audubon Society and the boards of supervisors of certain counties rendered uniformity of action in enforcing the laws impossible. In South Carolina failure to confirm the chief warden and lack of adequate appropriation deferred the successful inauguration of the new warden system.

In legislation the record of the year was small, as is usual in even-numbered years, when comparatively few State legislatures meet. In New Jersey an attempt to exempt the warden force from the State civil-service law resulted in the veto of an important game measure. The number of game cases appealed to the higher courts was larger than in 1909. Comparatively few novel points were decided, but it is interesting to note the construction of the provisions of the law governing interstate commerce in game rendered by the circuit court of appeals for the eighth circuit, and the first decision of the higher courts on the law prohibiting the use of automatic guns rendered by the Supreme Court of Pennsylvania. In Pennsylvania, also, the law prohibiting possession of firearms by aliens was upheld in the lower courts, and in consequence the disarming of aliens has made rapid progress. In one of the Maine courts a fine was imposed for possession of a silencer, the first penalty of the kind under the recent law.

CONDITION OF GAME.

BIG GAME.

The condition of big game throughout the United States continues to present many diverse and important problems. In the East, where game is largely free from natural enemies, and particularly where hounding is prohibited and females and young are protected throughout the year, deer are increasing. In the West, where game

is exposed to the attacks of wolves, coyotes, and mountain lions, and its natural range is encroached upon more and more by settlement and the demands of grazing, conditions are far from satisfactory. Apart from these general conditions, special or local conditions frequently require consideration. The deer of Alaska suffered severely during the deep snow of the winter, and the elk in Jackson Hole, Wyo., for a time were threatened with starvation from the same cause. In Maine, for some unexplained reason, a scarcity of large moose occurred, no notable heads apparently having been secured during the year. The large number of deer killed in some sections was probably due to the unusually favorable hunting conditions rather than to unusual abundance. The problems presented

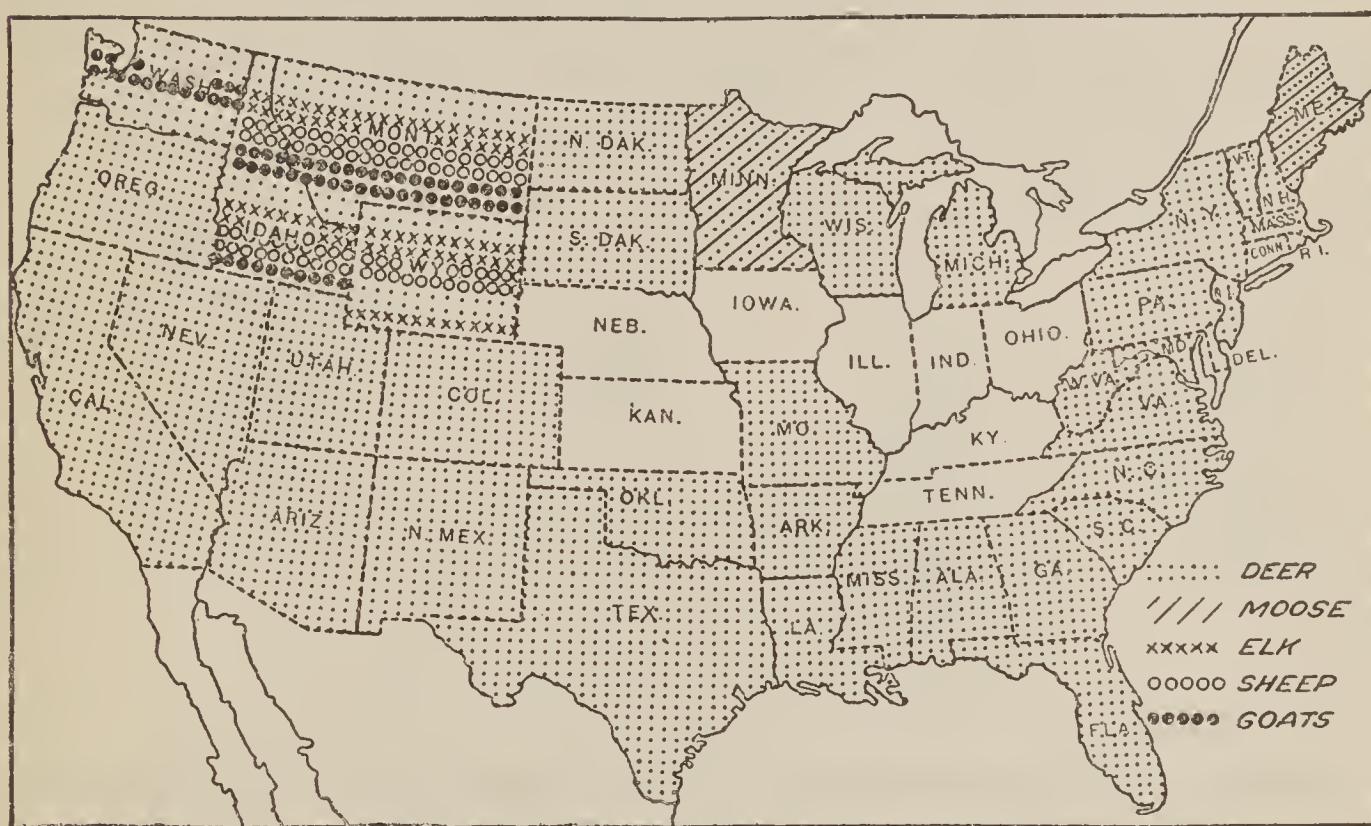


FIG. 1.—Map showing States which had big game hunting in 1910. The eleven States not shaded had a close season or are now destitute of big game.

by the maintenance of big game in thickly settled States, particularly in New England, New Jersey, Iowa, or in sections where the range has recently been limited, as in Wyoming, require thorough investigation in order to reach an equitable adjustment of the demands of the game protectionists and the farmers.

During the year an important step was taken in securing more accurate information regarding big game in the West. Through the cooperation of the Forest Service data were collected on the distribution of game on all of the National Forests, and in Washington the material was prepared for the use of a committee appointed by the governor to revise the game laws. This material contains the best account thus far prepared on the big game of the National Forests, which include the ranges of most of the big game of the State.

Opportunity to hunt big game was afforded in all the States except 11.¹ The opening of the season in several counties of Massachusetts raised the number of States with open deer seasons to 37. Elk hunting is still permitted in Idaho, Montana, and Wyoming; an open season for moose is provided in Maine and Minnesota; mountain sheep hunting is still possible in Montana, Wyoming, and Idaho; and mountain goats may be hunted in Idaho, Montana, and Washington. Antelope are now protected throughout the United States, and caribou occur only in Idaho and Minnesota, where they are protected throughout the year. (See fig. 1.)

Some of the States have found it necessary to limit each hunter to one head of each kind of big game, but in the case of deer the limits are usually more liberal, as shown in the following table:

Table showing number of deer allowed each hunter in the season of 1910.

1 deer.	2 deer.	3 deer.	5 deer.
Colorado. Maryland. Massachusetts. New Jersey. New Mexico. Oklahoma. Pennsylvania. Utah. Vermont. Wisconsin.	California. Idaho. Maine. Michigan. Minnesota. Nevada. New Hampshire. New York. North Dakota. South Dakota. Washington. West Virginia. Wyoming.	Arizona. Montana. Texas.	Florida. Louisiana. Mississippi. Oregon. South Carolina.

Alabama and Missouri have a limit of one deer per day; in Arkansas, Georgia, North Carolina, and Virginia either there are no limits, or they are confined to a few counties.

In Alaska, where both the variety and limit of game are greater, each hunter is allowed 8 deer, 2 moose, 3 caribou, and 3 sheep.

Deer.—It is somewhat difficult to compare the conditions in the various States, owing to differences in the length of open seasons, methods of hunting, and bag limits. Hunting before September 1 is permitted only in California, Oregon, and Alaska. In several of the best deer-hunting States in the North, namely, Michigan, Minnesota, Wisconsin, and North Dakota, the season is limited to three weeks; while in Vermont, Massachusetts, and New Jersey it is restricted to one week or less. The open seasons in each State in 1910 are shown in the following table:

¹ Rhode Island, Connecticut, Delaware, Tennessee, Kentucky, Ohio, Indiana, Illinois, Iowa, Kansas, and Nebraska.

Table showing open seasons for deer in 1910.

States.	Season.	Num-ber of days.	States.	Season.	Num-ber of days.
NORTHERN STATES.			SOUTHERN STATES—continued.		
Maine.....	Oct. 1-Dec. 15.....	75	Georgia.....	July 15-Jan. 1.....	169
New Hampshire.....	Oct. 1-Dec. 1.....	61	Florida.....	Nov. 1-Feb. 1.....	92
Vermont.....	Oct. 31-Nov. 6.....	6	Alabama.....	Nov. 1-Jan. 1.....	61
Massachusetts.....	Nov. 21-27.....	6	Mississippi.....	Nov. 15-Mar. 1.....	106
New York.....	Sept. 16-Nov. 1.....	46	Louisiana (local laws).....		
New Jersey.....	Nov. 2, 9, 16, 23, 30.....	5	Arkansas.....	Sept. 1-Feb. 1.....	153
Pennsylvania.....	Nov. 15-Dec. 1.....	16	Texas.....	Nov. 1-Jan. 1.....	30
Maryland (local laws).....			New Mexico.....	Oct. 15-Nov. 16.....	32
Virginia.....	Sept. 1-Dec. 1.....	91	Arizona.....	Sept. 15-Dec. 1.....	76
West Virginia.....	Oct. 15-Dec. 1.....	47	PACIFIC STATES.		
Michigan.....	Nov. 10-Dec. 1.....	21	California.....	July 15-Nov. 1.....	108
Wisconsin.....	Nov. 11-Dec. 1.....	20	Nevada.....	Sept. 15-Oct. 15.....	30
Minnesota.....	Nov. 10-Nov. 30.....	21	Utah.....	Oct. 15-Nov. 15.....	31
Missouri.....	Nov. 1-Jan. 1.....	61	Idaho.....	Sept. 1-Dec. 1.....	91
South Dakota.....	Nov. 1-Dec. 1.....	30	Washington.....	Oct. 1-Dec. 1.....	61
North Dakota.....	Nov. 10-Dec. 1.....	21	Oregon.....	Aug. 1-Nov. 1.....	92
Montana.....	Oct. 1-Dec. 1.....	61	Alaska.....	Aug. 15-Nov. 2.....	78
Wyoming.....	Sept. 25-Dec. 1.....	67			
Colorado.....	Oct. 1-Oct. 11.....	10			
SOUTHERN STATES.					
North Carolina (local laws).....	Oct. 1-Feb. 1.....	92			
South Carolina.....	Nov. 1-Feb. 1.....	92			

The deer season on the whole was favorable. In Maine it was apparently somewhat above the average. In Vermont, owing to drought and the consequent danger of fire in the woods, the hunting season was postponed by proclamation of the governor.¹ In New York, notwithstanding the shortening of the season by 15 days in November, the number of deer shipped was 2,343 as compared with 3,025 in 1909, while the number killed was probably as great as in 1909. In Wisconsin the number of deer shipped by rail (4,137) showed an increase over those of the previous year (3,985), and in Minnesota there was a similar increase, 2,547 as compared with 2,130 in 1909. In Michigan the season was a record one, owing to the presence of tracking snow on the ground every day of the season. This condition has not prevailed since 1903, and as a result there was an increase of about 100 per cent over the number of deer killed in 1909.

As in former years, information has been collected from all the States possible regarding the number of deer killed. As shown by the following table, statistics are available for all the Eastern States except North and South Carolina and Louisiana. In the West, estimates have also been obtained for Missouri (345), Colorado (700), Wyoming (1,400), Montana (1,500), and Oregon (2,000).

¹This postponement of one week cost the State several thousand dollars for extra warden service and expenses incident to notifying hunters.

Estimate of number of deer killed in States east of the Mississippi River.

States.	1909	1910	States.	1909	1910
Maine.....	15,879	15,000	Maryland.....	13	6
New Hampshire.....	(¹)	(¹)	Virginia.....	210	224
Vermont.....	4,736	3,649	North Carolina.....	(¹)	(¹)
Massachusetts.....		1,281	South Carolina.....	(¹)	(¹)
New York.....	9,000	9,000	Georgia.....	367	369
New Jersey.....	(¹)	120	Florida.....	2,021	1,526
Pennsylvania.....	500	800	Alabama.....	148	132
Michigan.....	6,641	13,347	Mississippi.....	458	² 500
Wisconsin.....	6,000	6,000	Louisiana.....	5,470	³ 5,000
Minnesota.....	6,000	3,147			
West Virginia.....	51	49	Total.....	57,494	60,150

¹ No statistics available.
² Actual number reported 328, but 5 counties which reported 166 deer in 1909 made no report in 1910.
³ Estimate. No detailed statistics available.

Estimates for the 22 States enumerated above for which statistics are available show a total of 60,150 deer killed. Making fair allowance for the 15 States from which no reports have been received, the total number of deer killed in the United States may be roughly estimated at 75,000 or 80,000.

Elk.—The chief problem in connection with elk is that of winter feed for the great herds which range in the Yellowstone National Park in summer and move southward to Jackson Hole in winter. The severity of the weather in January and February threatened widespread devastation among the elk in Jackson Hole and wholesale losses were averted only by the unexpected thaw early in March. The loss in this region was about normal, and only about 60 tons of hay were fed during the winter. The expenditure from the special appropriation made the preceding year was \$627 as compared with \$3,782 in the winter of 1908–9. The conditions prevailing in Jackson Hole were made the subject of a personal investigation by the governor and State warden of Wyoming in winter and by a representative of the Biological Survey in summer. The State warden of Wyoming estimates that about 1,700 elk were killed in the State during the open season. Considerable numbers were also killed in Idaho and Montana, but reliable statistics are lacking. An estimate of 3,000 to 4,000 as the total number killed in the three States would perhaps not be excessive. The only other States in which wild elk now occur are New York, Minnesota, Colorado, California, Oregon, and Washington. The elk liberated in the Adirondacks a few years ago, which were reported in 1907 to number 425, are unfortunately steadily decreasing. The explanation given by the forest, fish, and game commission is that the yearling elk resemble deer and are often unintentionally shot by hunters. If the State law prohibited the killing of does, this condition would be largely obviated and the elk given a chance to increase. No reports concerning the present condition of the small herd in northern Minnesota have been received.

In Colorado the elk are reported as increasing slowly, and the total number now in the State is approximately 2,150. In southern California the herd of dwarf elk in the San Joaquin Valley is said to number upward of 250. The small herds of elk in the Klamath National Forest in the northern part of the State are apparently holding their own. In Oregon small herds of elk are still found in several parts of the State, notably in the Imnaha, Siuslaw, Cascade, and Whitman National Forests. In Washington the Roosevelt elk in the Olympics are reported as showing a perceptible increase, the total number now being estimated at 3,000 to 3,500, of which about 1,975 are in the Olympic National Forest. In 1905 the total number was estimated at 2,000 or less.

Moose.—The open season for moose in Maine lasts 47 days and in Minnesota 21, closing in each State on the first of December. The total number shipped over the railroads in Maine was 105 as compared with 184 in 1909. The condition of moose in the State was considered unsatisfactory, and some proposals were made for closing the season for several years. Statistics of the number of moose killed in Minnesota are unfortunately not available, but 78 were shipped out of the woods. In the northern Rocky Mountain region the moose seem to be increasing under the protection they have enjoyed for a number of years. In Idaho the State warden believes the herds have now reached a point where an open season on adult bulls may be safely provided for a year or two, and similar conditions prevail in Wyoming. Through the courtesy of Hon. George Shiras, 3d, who has made a personal study of the moose in the Yellowstone National Park region during the past two seasons, the following estimates have been furnished regarding the number of moose in this general region: In the Yellowstone National Park, 1,550; in Wyoming, 500; in northwestern Montana, 500; and in Idaho, 500; total, 3,050.

Antelope.—The condition of antelope still remains unsatisfactory, notwithstanding the fact that the animals enjoy complete protection throughout the United States. The laws providing a close season will expire in 1911 in Arizona and South Dakota, and in 1912 in Colorado and Texas, and unless provision is made at the next sessions of the legislatures for continuing the close season the antelope in those States will be left without protection. The chief danger arises, however, from encroachment on their range through settlement in the Plains region and by sheep and cattle grazing in the Rocky Mountain States. The drought of the past summer and the consequent scarcity of grass for sheep and cattle undoubtedly resulted disastrously for antelope in some sections, but no definite information as to the effect of these agencies is available.

Sheep.—The only State from which statistics are available as to the number of sheep killed is Wyoming, where, according to the State warden's estimate, 65 were obtained during the open season. Reports vary as to the condition of sheep in the States where complete protection is afforded. In Colorado, where no open season has been provided for 25 years, sheep are showing a decided increase and seem to be in satisfactory condition. In California, notwithstanding continued protection for some years, the sheep are in less satisfactory condition, although considerable numbers were reported from the mountains east of Owens Valley during the year. In the Desert buttes and ranges along the lower Colorado less attention seems to be paid to the law, and the game commission last summer took steps to afford more adequate protection to the scattered bands in that region. The close season for sheep in Texas expires in 1912, and unless it is renewed at the coming session of the legislature the bands in the mountains of the southwestern part of that State will be left without protection.

Mountain goats.—Careful estimates made by forest officers in Washington indicate that the total number of mountain goats in the State, exclusive of the Mount Rainier National Park, is about 1,700, of which 1,000 are found on the west slopes of the Cascades and 700 east of the summit of this range. It is estimated that hunters kill about 75 each year in the western part of the State and 140 in the eastern part, or a total of 215, while the number which predatory animals destroy is estimated at about 360. The total number killed annually is thus about one-third of the stock, so that at present mountain goats are diminishing, and in a condition far from satisfactory. Reports from Idaho, on the contrary, indicate an increase. No information is at hand regarding the present condition of the species in western Montana.

Buffalo.—A census made by the American Bison Society shows a total of 2,108 pure-blood buffalo in North America, as compared with 1,917 at the date of the last census, made in 1908. Of these, 1,007 are in captivity in the United States, 626 are in captivity in Canada, and 475 are wild. The corresponding figures for 1908 were 1,116, 476, and 325. The decrease in the number in the United States was caused by the large purchases made by the Canadian Government; the total number of buffalo has, however, increased by nearly 200. The largest herds in private hands are now those of the Soldiers' Creek Park at Belvidere, Kans.; the remainder of the Pablo herd at Ronan, Mont.; the Blue Mountain Forest Association herd at Newport, N. H.; the Lillie herd at Pawnee, Okla.; the Phillips herd at Pierre, S. Dak.; the Goodnight herd at Goodnight, Tex.; and the Dooley herd on Antelope Island in Great Salt Lake. The outlaw buffalo belonging to Michel Pablo, which have thus far defied all

attempts at capture, are supposed to number about 75. It was announced in the autumn that a hunt would be organized by the owner of the herd. The State warden, upon advice of the attorney general, immediately took steps to prevent the hunt under the provisions of an old Montana law prohibiting the killing of buffalo at any time in the State. In Colorado the last chapter in the history of the Lost Park herd was written in a decision of the supreme court rendered February 7, 1910, and by the action of the State in selling the skins and heads for the sum of \$1,085. These specimens, originally killed in 1897, have now passed into the hands of a private individual of Leadville and were mounted for exhibition during the summer.

GAME BIRDS.

Quail.—Despite several setbacks, quail came through the year very well. At the outset the prospect was rather unfavorable in a large part of the bird's range. From New York, Pennsylvania, and the Ohio and upper Mississippi Valleys came reports of severe weather, heavy snow, and intense cold. In Iowa and Nebraska these adverse conditions reached their climax, and sportsmen were led to believe that the quail of those States had been practically exterminated. A generally favorable breeding season followed, however, though very wet in a few sections and very dry in others. In some localities after the first brood had been destroyed a second one was successfully reared, and as later conditions were very good (in many regions ideal) the crop of quail was unusually large. The breeding season was succeeded in some States by a dry fall, which limited the use of hunting dogs and frequently made the shooting poor in consequence. The year closed unfavorably, with unusually severe and snowy weather in December in a large part of the quail country, and much of the year's gain was lost. Some scarcity developed among the quail of southern California and continued without improvement.

It is evident from this brief résumé of the year that severe cold and ice and snow do not necessarily greatly damage the stock of quail, especially if the birds are fed when the usual food is covered by snow. With sufficient available food supply the bobwhite can endure zero temperature without harm.

Ruffed grouse.—Ruffed grouse were not plentiful in most of their range, but exhibited no striking scarcity such as excited alarm a few years ago. They were fairly abundant in Maine and locally in Pennsylvania, New York, North Carolina, Michigan, and West Virginia, but were scarce in Massachusetts, Connecticut, northern Pennsylvania, the Lower Peninsula of Michigan, and Minnesota. Reports from Saratoga County, N. Y., and Windham County, Conn., indicate

considerable loss through ticks. Many ruffed grouse and blue grouse perished in the forest fires of Idaho, Montana, and Oregon.

Prairie chickens.—Reports received at the beginning of the year indicated that prairie chickens had suffered severely from the unfavorable winter; heavy storms of snow, sleet, and rain in Nebraska, Minnesota, and North Dakota led observers to believe that most of the prairie chickens of those States had been winter killed. But later observations showed that the birds had wintered well, and, as the hatching season was favorable, had come through in good shape. By the opening of the shooting season they were reported as plentiful in these States and also in Illinois, Iowa, Wisconsin, South Dakota, and Texas. In parts of Kansas they were scarce, but there was a fair supply in other sections of the State. In most of their range they were more abundant than for several years, and even within 30 miles of Chicago on the prairies west of the city there were many to be seen. In some parts of Illinois, however, complaint was made that the absolute protection afforded prairie chickens since 1903 had produced no increase in their number. Such complaints are sometimes well founded, as an unfavorable season will wipe out the increase resulting from years of protection; but, on the other hand, criticism of such protection is too often induced by impatience of restraint.

Wild turkeys.—Wild turkeys seemed to maintain their normal abundance throughout most of their range, as far north as the foothills of the Blue Ridge in Pennsylvania, and in several places they were unusually abundant. Reports from certain sections in West Virginia, North Carolina, Louisiana, and Texas indicated a greater abundance than for several years past. In Maryland they were comparatively scarce, though a few were taken by hunters in the mountain regions of the State.

Woodcock.—Meager reports indicate a greater abundance of woodcock at certain points in Massachusetts, Connecticut, and Ohio than for several years. Erie County, Pa., reports a few breeding; and in eastern Oklahoma, where woodcock are usually rare, there was a fine flight.

Waterfowl.—Although from the point of view of gunners the waterfowl season was not satisfactory, from the standpoint of conservation it seems to have been very favorable. While in many instances local conditions made the shooting poor, large flights of ducks and geese are reported from all the leading duck centers. Mallards and teal seem to have been particularly abundant in the lower Mississippi Valley, possibly because of the increased breeding of these birds in Northern States that have prohibited spring shooting. In California, owing to a drought during the first part of the season, there was only fair shooting and this was practically confined to the marshes along the coast, but about the middle of December the State was visited by

unusually heavy rains which had the effect of drawing the ducks to the interior valleys and leaving the coast shooting very poor. Geese seem to have been particularly abundant in the interior valleys. On the Atlantic coast the number of canvasbacks and redheads was greater than usual in the Long Island bays and on the Massachusetts coast, but much smaller than usual on the Susquehanna Flats and Currituck Sound, where these species are usually abundant. Canvasbacks are reported as numerous and increasing on Cayuga Lake, central New York, where they were very scarce a dozen years ago. At certain points in Texas redheads and pintails were very abundant, while canvasbacks were rather scarce.

In Utah disease manifested itself about the first of August, affecting not only waterfowl but also snipe and other shore birds and several of the smaller herons. It began in the breeding grounds bordering Great Salt Lake, but rapidly extended in the northern part of the State and continued until after the advent of cold weather. So virulent was this disease that the health authorities of Utah prohibited all sale of ducks and snipe in the markets of the State. The trouble appeared to be intestinal and was diagnosed as a form of cholera. A few ducks which were forwarded to the Department of Agriculture for examination by the Bureau of Animal Industry, however, were found to have died of intestinal coccidiosis. The season was unusually dry, so much so that North Bay, a lake of 10,000 acres at the mouth of Beaver River, dried up completely in August and September. On October 1 this lake was artificially flooded and by attracting ducks from the polluted grounds probably saved many. Investigations by the State game warden of Idaho showed that the disease had not spread to that State, and, so far as known, it was confined to the State of Utah. A similar though much more circumscribed outbreak which occurred in Colorado at the Riverside Reservoir, near Denver, and which was attributed to stagnant pools left by drawing off the water, destroyed a large number of ducks; and a local disturbance of like character was investigated at Stockton, Cal., and found to be probably due to poisoning through sewage.

In certain regions in Illinois and Wisconsin the shooting on some of the best ducking grounds was seriously interfered with by the destruction of the wild rice and wild celery, which in former years have attracted the birds to these points in large numbers. This destruction is attributed and probably correctly to carp, with which the waters have been stocked, and is similar to the loss of vegetation which occurred in some localities on the lower Sacramento and Suisun marshes of California 20 years ago, greatly to the detriment of the shooting. The shores of several lakes in Wisconsin were strewn with the bulbous roots of these plants; and while such

destruction is occasionally caused by freshets, yet it has been fairly well established that much if not most of the damage is due to carp.

Introduced birds.—Introduced pheasants seem to have held their own in sections where they have become established and in some instances show an increase. In the region around Buffalo, N. Y., where shooting is permitted for a short season in the fall and where 15,000, it is estimated, were killed in 1908, the stock does not seem to have been diminished. In the Genesee Valley and in the region around Canandaigua pheasants have become quite numerous. In Massachusetts the birds seem to be holding their own, and the same is true of Ohio.

In no place where they have been liberated have Hungarian partridges yet become fully established, and in several regions where large sums have been spent in the attempted acclimatization of these birds they are reported to have disappeared through climatic or other causes. Other foreign game birds have practically all disappeared from the regions where they have been liberated.

NATIONAL PARKS AND GAME REFUGES.

The list of reservations under Federal jurisdiction utilized as refuges or breeding grounds for game received a notable addition during the year in the creation of the Glacier National Park, in Montana. No additions were made to the list of national monuments or of bird reservations.

Yellowstone National Park.—The report of the acting superintendent of the Yellowstone National Park indicates that in spite of severe weather the game wintered well. About 800 blacktail and 100 whitetail deer, 60 mountain sheep, and the herd of antelope were fed during the winter on alfalfa hay in the field near Gardiner. All but 20 or 25 of the antelope escaped from the park during the temporary absence of the superintendent; but upon his return the fence was raised for about a mile and a detail of soldiers and rangers was sent in pursuit of the animals; in this way some 600 or 700 were returned. The number of elk in the park is estimated at 30,000 to 40,000. Considerable loss of calves resulted from the severe weather in winter. The moose in the southeastern and southwestern parts of the park have increased, according to Hon. George Shiras, 3d, who made a special investigation of the moose on the upper Yellowstone. The number now in the park is about 1,550. The wild buffalo were seen on several occasions; five were noted on Cache Creek on February 3 and a herd of 29 on February 23 in Pelican Valley. One old bull died during the winter near Yellowstone Lake. The buffalo under fence were increased by the addition of 28 calves, and the herd now numbers 121, a net increase of 26 during the year. Sixteen bulls were brought down from Rose Creek and placed in the pasture at Mammoth Hot Springs, and during the season about 6,000 tourists

viewed this herd, which is now one of the main attractions at this point. During the summer the entire herd at Rose Creek was turned loose daily for the purpose of grazing. In this way it was possible to give the buffalo practically all the feed they needed outside the pasture and at the same time to accustom them to being handled. About 150 mountain sheep were seen during the winter near Tower Falls, in the vicinity of Mount Evarts. Many complaints were made of damages done by bears in summer about the camps. Coyotes are still numerous; about 40 were shot and trapped during the year.

Sequoia National Park.—The big game in the Sequoia National Park, according to the report of the acting superintendent, is in a satisfactory condition. Deer are increasing and are very tame, a fact which has apparently led to an undue amount of killing. Under a local ordinance of the board of supervisors of Tulare County the close season has been extended from July 15 to August 31, but despite this added protection the deer in the park have suffered. The boundaries follow township lines and not the topography of the country, and deer straying across the boundary fall a prey to the hunters posted along the line immediately on the opening of the season. The herd of dwarf elk is reported as increasing. Wild turkeys donated by the Board of Fish and Game Commissioners of California were liberated during the summer, 55 at the mouth of Marble Fork and 29 at Salt Springs. The superintendent recommends the experiment of introducing buffalo and antelope in this park, the latter along the upper reaches of the South Fork of the Kaweah River.

Yosemite National Park.—A marked increase in the number of deer, bear, grouse, and quail in the Yosemite National Park is reported, but no statistics are available as to the actual or relative numbers. As in the Yellowstone Park, some annoyance was caused by the bears to campers in the valley. Coyotes have become more numerous, but there seems to be no increase of mountain lions.

Mount Rainier National Park.—Details are lacking as to the condition of game in the Mount Rainier National Park, but deer, bears, grouse, and ptarmigan are reported in abundance on the watersheds of the Puyallup, Mowich, and Carbon Rivers, and numbers of mountain goats have been seen on the higher ridges. The blasting in connection with the construction of the Government road in the Nisqually district has to some extent driven the game to the northern part of the park.

Mount Olympus National Monument.—The reservation designated as the Mount Olympus National Monument seems to be accomplishing the purpose for which it was created. An estimate made by the district forest ranger at Port Angeles late in the year shows about 1,975 elk on the reservation. The largest bands are found on the

watersheds of the Bogochiel, Elwha, Hoh, Queetz, and Solduck Rivers. The number of deer was estimated at 3,000 to 4,000, a slight increase, due to the destruction of cougars and wildcats.

Grand Canyon National Game Preserve.—Bills to enlarge the Grand Canyon National Game Preserve and also to establish a national park along the canyon were pending during the last session of Congress, but as they failed to pass no change has yet been made in the status of this game refuge. Deer in the preserve are reported to be increasing steadily.

The Wichita Game Preserve.—The herd of buffalo on the Wichita Game Preserve still continues to do well and now numbers 23, an increase of 8 over the number originally placed on the reservation. The number of deer at the close of the year was about 40. In December 11 antelope were shipped from the Yellowstone National Park, 4 of which died in transit or soon after arrival, leaving 1 buck and 6 does on the preserve. Negotiations for herds of elk and deer were begun, but nothing definite had been accomplished at the close of the year.

National Bison Range.—The herd of buffalo placed on the National Bison Range in 1909 wintered well and showed a satisfactory increase. Nine calves were born in the spring and 2 in September. In the early autumn 3 additional buffalo were received through the American Bison Society as a gift from the Corbin herd in New Hampshire. No losses from any cause were incurred during the year, and as there were 37 buffalo on the range in 1909, the close of 1910 found the herd increased to 51. In December 12 antelope were transferred from the Yellowstone National Park; 4 of these died in transit or soon after arrival, leaving 3 bucks and 5 does as the nucleus of a herd. Some coyotes still infest the range and efforts have been made to reduce their numbers, for as long as any remain on the range they will be a menace to the antelope and other game.

NATIONAL BIRD RESERVATIONS.

Only one change was made in the bird reservations during the year. Under the act of Congress providing for the maintenance of the fur seal, the Pribilof Bird Reservation in Bering Sea was made a part of the Fur-Seal Island Reservation and placed in charge of the Department of Commerce and Labor.

The breeding season on several reservations began unusually early. On Pelican Island, Florida, the first eggs were laid about October 16, 1909, and by the middle of November the first birds had hatched. About March 16 the first young were able to fly, and in June the second laying had begun. The season was an unusually favorable one, and at its height the colony probably comprised 7,000 birds. The early

spring also caused the ducks on the Stump Lake Reservation, in North Dakota, to begin breeding unusually early, and as a result the cold wave about the first of April caused the loss of several nests. On the Tortugas Reservation, in Florida, experiments on the migration and homing instincts of birds were conducted during the breeding season. Except on two or three of the reservations little trouble was experienced with poaching. The Japanese poachers arrested on Laysan and Lisiansky Islands, in the Hawaiian Reservation, were brought to Honolulu, tried, sentenced to pay a nominal fine, and deported. Efforts to proceed under the immigration laws against those who were responsible for bringing the Japanese to the reservation failed. The plumage of about 259,000 birds secured on the reservation by the poachers was taken possession of by the department and placed in storage at Honolulu.

STATE GAME PRESERVES.

Notable progress was made in the establishment or development of State game preserves and propagating farms. In Louisiana, under a law enacted during the year, two large game preserves were set aside, one in Caldwell Parish, in the central part of the State, and one in Plaquemines and Jefferson Parishes near the delta of the Mississippi. Earlier in the year the game commission leased for 10 years a preserve of 94,000 acres in Avoyelles Parish containing deer, quail, turkeys, and other game. In Connecticut the commission established two leased preserves, one in Milford for two years and one in Middlebury for 25 years. In New York the St. Lawrence Reservation was extended to include part of the shore of Lake Ontario. In Wyoming the Big Horn State Game Preserve, established in 1909, was stocked with a herd of elk from the Jackson Hole region. Early in March, 27 elk were captured in Jackson Hole, taken across the Teton Pass to St. Anthony, shipped by rail through Idaho and Montana to Sheridan, Wyo., and thence transferred to the Big Horn Preserve. Twenty-five were liberated on the preserve. The cost of the transfer, including capture, transportation, and feeding of the animals, amounted to about \$1,300. In North Dakota the State Game and Fish Board of Control, after careful investigation, recommended the setting aside of certain islands in the Missouri River as game refuges, particularly for the preservation of deer. In Indiana the project of State game preserves on private lands, inaugurated a few years ago, became so popular and was extended so generally that it was deemed necessary to limit both the size of the preserves and the number in any one county, in order to prevent too large a territory from being posted in any one section.

PRIVATE GAME PRESERVES.

The unsatisfactory conditions relating to certain ducking preserves in California, Illinois, and Arkansas still continue. Opposition on the part of market hunters and others not only threatens the success of the preserves, but frequently has serious results. In California the owners of some of the largest preserves in the San Joaquin Valley considered withdrawing the shooting privileges on the lands unless the differences between the members and the nonmembers could be adjusted; in Illinois the unsettled conditions along the Illinois River proved highly unsatisfactory to club members; and in Arkansas matters were carried to an extreme at Big Lake when one of the poachers was accidentally killed by a deputy marshal on guard at the preserve. As in former years, numerous large tracts of land were acquired, not only for ducking preserves, but for upland game as well. Among the more important of these may be mentioned: 11,000 acres leased by the Farmers' Preserve, at Peru, Ind.; 11,500 acres secured by the Egg Mountain Club, of Salem, N. Y.; 10,000 acres in Placer County, Cal., secured by the Colfax Gun Club; Twelve-Mile Lake and 1,000 acres at Stroudsburg, Pa., the property of the Hunters' Range Association; and tracts of 1,800, 1,600, 500, and 300 secured, respectively, by the Aransas Pass (Tex.) Gun Club, the Elsberry (Mo.) Hunting and Fishing Club, the Blue Wing Club of San Antonio, Tex., and the Joliet (Ill.) Hunting Club. In addition to these a preserve comprising two sections along the Desplaines River was established by the Blue Wing Club of Joliet, Ill.

INTRODUCTION OF GAME BIRDS.

Continued interest has been manifested in the experimental stocking of American covers with European game birds. The Hungarian partridge remains the favorite subject of these experiments, although there is a noticeable tendency to return to the pheasant, as more likely to give satisfactory results.

PHEASANTS AND PARTRIDGES.

Indiana bought and distributed 8,000 partridges, and New Jersey 2,000 partridges and 4,000 English ringneck pheasants during the year; Missouri arranged for the purchase and distribution of 4,000 partridges; California liberated 2,400 partridges in 39 counties; Iowa arranged for the purchase of 5,000 pairs of partridges to be liberated early in 1911; Idaho completed the distribution of 1,090 pheasants bought in 1909; Louisiana in the fall of 1910 bought 120 pheasants for distribution throughout the State and liberation on the State game preserve in Caldwell Parish; and Colorado placed 25 pairs of partridges in 9 counties and began the distribution of 2,000 pheasants. Oklahoma and Iowa distributed 20,076 and 6,265 pheasant

eggs, respectively, to farmers for hatching and later liberation of the resulting broods. Iowa also arranged for the purchase and distribution of adult pheasants. South Dakota began an experiment with 200 or 300 pairs of pheasants and a few partridges, and Vermont gave much consideration to restocking the State with pheasants, wild turkeys, or Hungarian partridges, the last being regarded less favorably. A few partridges were turned out by private organizations in New York, and 100 partridges were planted in Mississippi and Tennessee by an enthusiastic sportsman.

It is yet too early to determine the outcome of most of these experimental measures, though negative results appear to have followed the liberation of partridges in New Jersey, Mississippi, and Tennessee. During the year, however, it has developed that the planting of 1,600 pheasants in Kansas three or four years ago has been entirely barren of results, and that of nearly 10,000 partridges liberated in Connecticut in 1908 and 1909 about 170 broods remained in the fall of 1909, which have since diminished and were probably finally destroyed by the severe weather of December, 1910. In the case of the Connecticut partridges the fact that shooting was prohibited for only one season largely accounts for their disappearance. In Indiana pheasants, which have been introduced for 12 or 13 years, have yielded only fair results, while through the last few years' introduction of Hungarian partridges there are, according to a recent estimate, 10,000 of these birds on the 160 preserves created by contracts with farmers. Pheasants have increased in New Jersey as the result of three years' planting; and partridges in Nebraska from 124 pairs put out by the State in 1907, augmented by \$1,000 worth liberated by ranchers early in 1909. Chinese pheasants introduced in Idaho in 1908 and 1909 have become established wherever fed and otherwise cared for. Delaware shows only negative results from 100 pairs of partridges distributed in 1909.

In Massachusetts, in Ohio, and in western New York, numerous complaints have been made of damage to crops by introduced pheasants. It is alleged that they are great pests in the cornfield and that they attack every kind of crop planted. In Ohio farmers are reported to be killing them in defense of their corn crops. In Massachusetts, however, the game commission reports that the damage they do is not serious.

In connection with these experiments with European birds it is worthy of note that in England partridges have steadily decreased in number in the last five or six years. This decrease is variously attributed to increase of sportsmen, introduction of disease through poultry or perhaps through imported Hungarian partridges, destruction by dogs and foxes, subdivision of shooting, dry weather, driving of game, and other causes.

OTHER GAME BIRDS.

Little was done looking to the introduction of foreign game other than pheasants and partridges. New Jersey liberated a few dozen European quail, which, however, soon disappeared; and California transferred some of its valley quail from points of abundance to points of absence or scarcity. The capercailzie, blackgame, hazel grouse, and dalryper introduced on Grand Island, Michigan, a few years ago have all disappeared, and no further experiments have been made with these or other less common species.

STATE GAME FARMS.

In addition to the transactions mentioned, considerable distribution of pheasants and partridges was made through State game farms. Missouri established such a farm at Jefferson City and reared and distributed between 6,000 and 7,000 pheasants during the year. New York at its State bird farm at Sherburne, near Utica, established in 1909, raised and liberated 1,200 pheasants and distributed 6,500 pheasant eggs, besides retaining 600 breeding pheasants, 25 pairs of English partridges, and 10 pairs of quail for future operations. The pheasants distributed were reared from 3,000 eggs and included English ringneck, Mongolian, and pure English pheasants. This farm has been operated on an economical plan and has produced most of the grain fed to the birds. Operations are conducted in two large fields inclosed by 9-foot wire fences. One of these fields containing 10 acres is devoted to the breeding birds, the other comprising 80 acres is used for young birds. At the California State game farm, at Haywards, 2,500 pheasants were raised during the year. A number of these, however, were destroyed by rats. Three hundred turkeys from stock imported from Mexico in 1908 were reared in 1909 and 1910, of which 30 were released in the San Bernardino Mountains, 48 in the Yosemite Valley, 119 in the Sequoia National Park, and 10 in Tulare County. The usual operations were continued at the Illinois State game farm at Springfield, and the Massachusetts propagation farm at the Sutton hatchery. At Sutton much attention was given to rearing quail, of which many were raised and distributed. The rearing of quail has attracted attention in Kansas, and it has been suggested that a quail hatchery be established and placed under the supervision of the State game warden. In Connecticut negotiations were begun by the State ornithologist for the establishment of a State game farm or a location for experimental work in breeding imported game birds.

IMPORTATION OF FOREIGN BIRDS AND MAMMALS.

The large importation of foreign birds and mammals shows a slight increase. The total number of birds imported during the year was 476,068, of which 356,466 were canaries, 69,613 other nongame birds, and 49,989 game birds. Most of the canaries were the common form of Hartz Mountain singers, but in addition to these there were imported 7,424 Norwich canaries, 60 of the large Manchester coppies, 4 of the humpbacked Belgian canaries, and 37 mule (or hybrid) canaries. Among the nongame birds were many rare species, including 3 of the greater birds of paradise imported in October for the New York Zoological Park. There was a notable increase of the small Indian yellow-hammers, to meet the demand for a cheap bird that could be retailed by street peddlers, to whom most of them are sold. These birds had never been imported into the country before April, 1909, but during the past year 2,105 were brought in. They sell at wholesale for \$6 a dozen. Canaries and other nongame birds are frequently imported in very large shipments. Thus in December a vessel from Hamburg brought 11,661 in one lot consigned to a New York importer.

Interest attaches largely to the game birds imported. These are brought in either for introduction into game covers or as aviary specimens. By far the largest importations were those of European partridges, of which 33,062 were entered, a slight increase over the number brought in last year (29,452). They were distributed chiefly to State game departments for stocking covers. Next in importance were the pheasants, of which 12,047 were entered, an increase over 1909 importations of more than 160 per cent. Of these 11,016 were English ringnecks, imported mainly for stocking purposes. Two consignments of birds arriving at New York during the year, one in March, the other in October, contained more than 4,000 English ringnecks each. The other pheasants imported were chiefly aviary birds—golden, Reeves, silver, Amherst, Elliot's, and other species—and the remaining importations of game birds, which were also chiefly brought in for aviary purposes, comprised 2,292 quail, 1,630 waterfowl (principally ducks), 170 shorebirds, and 455 miscellaneous species.

Foreign mammals were imported to the number of 7,862, consisting chiefly of Japanese dancing mice (3,780) and monkeys of various species (3,161). Interesting among the importations of the year was the shipment of valuable zoological specimens from Africa obtained for the National Zoological Park at Washington through the Roosevelt expedition, and containing, among other mammals, several African antelopes and a lophiomys (a peculiar maned rodent rarely seen in zoological collections). Worthy of mention also is a

shipment brought from the Arctic regions by Paul J. Rainey for the New York Zoological Park, which included six musk oxen, the largest number ever brought to the United States.

Most of the birds and mammals imported are entered at New York, and many of the others at Philadelphia and San Francisco. Many pheasants, however, are brought from Canadian pheasantries through the ports of Buffalo, Niagara Falls, Detroit, and Port Huron; while Mexico supplies large numbers of parrots and monkeys, and a few anteaters, squirrels, and other mammals, mainly through the port of Eagle Pass, Tex.

Two mongoose from Habana, intended for Norumbega Park, at Auburndale, Mass., were denied admission. While the law prohibiting the importation of mongoose, flying fox, and starling is well understood and respected among importers generally, every year witnesses one or more attempts to introduce these injurious species into the United States by persons who are ignorant of the law and of the disastrous results which have followed acclimatization in other countries. The United States is thus constantly threatened with the evils that have been experienced by other countries where these pests have become established.

NONGAME BIRDS.

Considerable activity was manifested during the year in the suppression of the trade in bird plumage. Washington, Oregon, and California continued the campaign already begun, and Missouri inaugurated a similar campaign under its new law by appointing a plumage expert and instituting vigorous measures to secure proper observance of the law. New York strengthened its plumage law so as to prohibit the importation of birds of the same families as those native to the State. This law is to become effective July 1, 1911.

Much destruction of robins was reported from the South, particularly in Tennessee and Louisiana. Work looking to their protection was begun by the National Association of Audubon Societies with the aid of a fund of \$500 presented by Mrs. Russell Sage, who also contributed a fund of \$5,000 annually for three years to further the cause of bird protection in the South.

Measures were taken to ascertain whether the passenger pigeon has been completely exterminated. Under the stimulus of rewards offered, aggregating altogether several thousand dollars, many reports were received of nesting passenger pigeons. The information, however, proved incorrect on investigation, and it is practically established that of the vast hordes of wild pigeons that formerly inhabited the eastern United States there is now but one survivor, a female bird 18 years old in captivity in the Zoological Garden of Cincinnati.

The Fifth International Ornithological Congress, which met at Berlin May 30 to June 4, appointed an international committee to devise and recommend measures for adoption by the United States and leading nations of Europe looking to the suppression of the international trade in bird plumage. The president of the National Association of Audubon Societies, who attended this congress, and the Assistant Chief of the Biological Survey, were appointed to represent the United States on this committee, which includes also representatives from Austria, Bavaria, Belgium, Denmark, France, Germany, Great Britain, Holland, Hungary, Italy, Norway, Russia, and Sweden. The congress adopted certain conclusions to direct attention to the necessity for the preservation of birds, especially plumage birds. It recommended the adoption of certain agreed rules and regulations to include: (1) Rational shooting laws and special laws for bird protection; (2) prohibition of exportation and importation of plumage for millinery; (3) prohibition of purchase and sale of feathers except for scientific purposes; (4) widespread diffusion of ornithological knowledge; (5) instruction through official and private channels; and (6) instruction of young people.

The publication and dissemination of a report of the extensive and comprehensive measures adopted by Baron von Berlepsch to secure the nesting and increase of birds on his estate in Thuringia has awakened an interest in the subject of providing nesting and feeding places for birds. This interest is likely to increase rapidly in the immediate future and its results can not fail to be of much value to bird preservation.

CONVENTIONS.

A number of meetings were held during the year by game wardens and game associations to discuss problems in game protection and unite on legislative measures to be recommended. Probably the most important of these gatherings was the annual meeting of the National Association of Game Wardens and Commissioners, which was held at New Orleans February 5 to 7, and at which 18 States were represented. The convention adopted resolutions favoring greater uniformity in State legislation and expressing the opinion that Federal legislation for the protection of migratory birds and fish, if constitutional, would be effective in preventing their destruction. Conventions were also held by the wardens of New York, Michigan, Maine, and Missouri.

At most of the meetings of State game associations steps were taken to further proposed legislation. The meeting of the Maine Sportsman's Fish and Game Association, held on January 7, was the most largely attended of any in the 17 years' existence of the organization. The Massachusetts Fish and Game Protection Association

met on January 12 and adopted resolutions favoring the establishment of bird sanctuaries in the State and the reduction of bag limits. The Georgia Game and Fish Protective Association met early in June and decided on a vigorous campaign to secure a modern game warden department. The annual meeting of the Michigan association occurred on September 14 and brought out strong opposition to spring shooting of waterfowl and advocacy of a nonpartisan game and fish warden department. The Maryland State Game and Fish Association, which met October 11, devoted its attention mainly to the need of a resident hunting license law; and the California Game and Fish Protective Association, meeting in the same month, was chiefly interested in securing laws cutting off the sale of ducks and spring shooting of snipe. The newly organized Kentucky Fish and Game Protective Association held its second meeting in December and appointed a committee to urge suitable protective legislation and another to educate the public on the needs of game protection. At the meeting of the New York Fish, Game, and Forest League at Syracuse, N. Y., December 8 and 9, the proposed separation of the forest, fish, and game commission into three independent departments did not meet with approval. The proposed repeal of the law prohibiting hounding of deer, which had been agitated in certain quarters, was also disapproved. The State game associations of Connecticut and Iowa likewise held important meetings.

ADMINISTRATION AND ENFORCEMENT OF GAME LAWS.

The year was marked by an unusual number of changes in the personnel of the State game departments. The game commission of California was twice reorganized, and those of Louisiana and New York once. The chairman of the Maine Commission of Inland Fisheries and Game was superseded after a service of 14 years, and a successor was appointed to the Fish and Game Commissioner of Vermont, who resigned after 7 years' service. A vacancy caused by death occurred in the Rhode Island Commission of Birds. Changes also occurred in the game warden departments of Indiana and Texas, and in the Maryland Board of Ducking Police. The legislature of South Carolina passed a law placing the work of game law enforcement in charge of a State game warden, in lieu of the South Carolina Audubon Society, and the governor made the necessary appointment; but as there was no opportunity for confirmation of this appointment and no appropriation made for the salary of the warden, it was impossible to organize the department, and it was necessary to cancel the commissions of the 300 deputies already employed.

There was considerable variation in the number of deputy wardens employed by several States as compared with 1909. In California the salaried assistants were increased from 60 to 73, and 9 per diem assist-

ants were added; in Massachusetts the salaried wardens were increased from 24 to 30; and in New York 5 game protectors were added to the 85 already provided for. The force of subordinate officers was also increased in Colorado, Idaho, Indiana, Iowa, Louisiana, Minnesota, South Dakota, Wisconsin, and Wyoming. On the other hand, decreases were made by Connecticut, Delaware, Nebraska, New Hampshire, Ohio, Rhode Island, Texas, and Vermont, in most cases owing to a failure of the funds at the disposal of the game department. In Alaska five game wardens were appointed by the governor at a total cost of \$9,339.63, of which \$6,654.18 was for salaries and \$2,685.45 for expenses. The following table shows the number of deputy wardens employed during the year:

Table showing number of game wardens on duty in 42 States in 1910.

States.	Sal- aried.	Per diem.	With- out salary.	Total.	States.	Sal- aried.	Per diem.	With- out salary.	Total.
Alabama.....	0	67	-----	67	New Jersey.....	25	6	384	415
Alaska.....	5	0	0	5	New Mexico.....	1	26	160	187
Arizona.....	0	0	100	100	New York.....	90	0	500	590
California.....	73	9	577	659	North Carolina ¹	0	4	50	54
Colorado.....	15	5	945	965	North Dakota.....	-----	-----	-----	-----
Connecticut.....	1	19	192	212	Ohio.....	7	20	125	152
Delaware.....	0	1	48	49	Oklahoma.....	8	0	1,000	1,008
Idaho.....	3	22	40	65	Oregon.....	52	21	15	88
Illinois.....	15	135	500	650	Pennsylvania.....	20	5	600	625
Indiana.....	33	0	55	88	Rhode Island.....	1	25	108	134
Iowa.....	3	90	10	103	South Carolina.....	0	0	0	0
Kansas.....	0	0	150	150	South Dakota.....	58	0	0	58
Louisiana.....	74	2	0	76	Tennessee.....	0	0	250	250
Maine.....	40	50	50	140	Texas.....	0	25	300	325
Maryland.....	-----	-----	-----	-----	Utah.....	34	7	200	241
Massachusetts.....	30	15	202	247	Vermont.....	0	457	0	457
Michigan.....	14	28	0	42	Washington.....	1	0	38	39
Minnesota.....	44	18	20	82	West Virginia.....	2	0	235	237
Missouri.....	20	45	20	85	Wisconsin.....	60	18	0	78
Montana.....	15	0	300	315	Wyoming.....	0	37	15	52
Nebraska.....	4	0	200	204	Total.....	748	1,167	7,439	9,354
New Hampshire....	0	10	50	60					

¹ Returns received only from the counties under the jurisdiction of the Audubon Society.

Special activity was manifested in several of the States. In Pennsylvania under the law prohibiting aliens from possessing firearms the game warden department made much progress in disarming unnaturalized foreigners. In Iowa vigorous measures were taken for the enforcement of the new law prohibiting the sale of game, and game traffic in the State was practically suppressed. In Louisiana efforts were directed largely toward securing the observance of the laws regulating market hunting and game shipments. The California Fish and Game Commission established a branch office in Fresno, in addition to the one previously established at Los Angeles. Connecticut was especially active in prosecuting the illegal killing and marketing of ruffed grouse. The newly appointed State game warden of South Carolina, in the absence of any provision for assistants, made a vigorous campaign throughout the State for better bird protection and for the establishment of a resident license. The Legislature of Kansas

at its 1909 session failed to make an appropriation for game-law enforcement, but in spite of this deficiency the State game warden was active in administering the law. Special mention should be made of conditions in Arkansas, which has no established office of State game warden but whose laws have, nevertheless, been vigorously administered by an appointee of the sportsmen of the State. The governor of Washington appointed a commission to revise existing game laws and draft a comprehensive scheme for the protection of the game in the State.

Considerable work was done in feeding quail throughout the winters of 1909-10 and 1910-11. In New Jersey all the game wardens were employed in this work and were assisted by farmers and sportsmen. Buckwheat seed amounting to 11,900 pounds was distributed through wardens to farmers, who agreed to sow it and let it stand as food for quail. In Connecticut game wardens made arrangements with farmers to leave a certain amount of uncut grain for quail food. In Iowa farmers were authorized to feed quail at State expense and deputy wardens cooperated with them in this work. In Louisiana, Ohio, and West Virginia independent measures were taken by farmers to provide shelter and food for quail, and it is stated that the birds have multiplied enormously in consequence. Much activity was manifested by the game-warden departments of several States along special lines mentioned in detail in other parts of this report.

Many violations of law are reported and some large fines were imposed. A fine of \$4,929 was imposed against a New York importer of game for selling canned partridges imported from Europe, and a meat and provision company in the same city was fined \$1,500 for possession of 60 red-winged blackbirds found in its warehouse, and still another firm \$250 for export of game from the State. A game dealer in Atlantic City, N. J., was discovered with 9 pheasants, 6 quail, and 20 rabbits in his possession out of season and paid a penalty of \$700. In California a fine of \$251 was imposed for the possession of quail in close season. In Maine a penalty of \$250 was imposed for the illegal transportation of deer, moose, and ruffed grouse; five fines of \$100 each for illegal killing of moose; \$100, with \$7 costs, for trapping fur-bearing animals without license; \$100 and \$2 costs for possession of a silencer; and a fine exceeding \$100 for illegal shipment of 10 partridges. A fine of \$209 was paid in Minnesota for buying moose meat, and \$158 for buying venison. A hotel at Green Bay, Wis., was fined \$160 for the possession of 12 ducks and 12 "rice hens." In Massachusetts 10 fines of \$100 each were imposed for hunting, wounding, or killing deer illegally; and in Connecticut two men were fined \$100 with \$40 costs for a similar offense. In California two fines of \$100 each were imposed for exceeding the bag limits for ducks and quail, respectively, and another for offering

quail for sale in close season. In Minnesota fines of \$100 each were imposed for killing deer, having deer in possession, and assaulting a game warden; and another of \$102.50 for killing a cow moose. Special mention should be made of an action brought against the Harrison Street Cold Storage Co., of New York City, for the illegal possession of game birds during the close season. In this case, which was pending at the close of the year, the damages sought amounted to \$147,435.

LEGISLATION.

The legislation in 1910, though small in list of laws passed owing to the fact that few legislatures were in session, included several important acts. Among the bills passed by Congress was the act of May 11, 1910, establishing the Glacier National Park in Montana, and the act protecting the seal fisheries of Alaska, which transferred protection of fur-bearing animals from the Treasury Department to the Department of Commerce and Labor. Game regulations for Alaska were issued by the Department of Agriculture on July 29, changing the deer and walrus seasons, reducing the limit of deer to 8, and suspending the sale of venison in southeastern Alaska in 1911.

Regular sessions of the legislatures were held in 12 States and special sessions in three, Illinois, Oklahoma, and Texas. Five Canadian Provinces modified their game laws and changes were also made through orders in council in British Columbia and Ontario. The total number of laws enacted was 64 in the United States and 7 in Canada, as follows: Illinois, 1; Kentucky, 1; Louisiana, 6; Maryland, 10; Massachusetts, 9; Mississippi, 1; New Jersey, 5; New York, 7; Ohio, 1; Oklahoma, 4; Rhode Island, 3; South Carolina, 2; Vermont, 12¹; Virginia, 2; British Columbia, 1; New Brunswick, 1; Newfoundland, 2; Nova Scotia, 1; Ontario, 1; Quebec, 1; total, 71.

Progress toward uniformity of seasons was made in Maryland, New Jersey, and South Carolina. The warden service was strengthened in Louisiana, Mississippi, Oklahoma, South Carolina, and New Brunswick, and important provisions were made for establishment of game refuges in Louisiana, while Oklahoma made an appropriation of \$32,000 for the propagation of game. Among the laws affecting big game should be mentioned the protection afforded does in South Carolina and Vermont, the opening of the deer season for the first time for some years in five counties in Massachusetts, the repeal of the special buck law in New York, and the closing of the deer season on Long Island for three years. Ontario reduced the limit on deer from two to one and British Columbia increased the limit on elk from one to two. Louisiana placed the black bear on the game list with

¹ Owing to the unusual length of the session several of these acts were passed and approved in January, 1911.

an open season from November 1 to February 1. In Maryland and New Jersey practically uniform duck seasons were established throughout the States, and in Massachusetts and New York spring shooting of brant was prohibited for the first time. Close seasons for five years were placed on upland plover in Massachusetts and wood ducks in New Jersey.

Bag limits were established for the first time in Maryland, Massachusetts, and South Carolina, leaving only four States in the Union that have not yet adopted this method of protection. New York added a limit on rabbits and hares and Louisiana made a general reduction in the bag limits.

Few changes were made in the restrictions on export and sale. Louisiana reduced the export limit of game under the nonresident license. New York shortened the open season for sale of native ducks a month and a half, but provided for sale of imported waterfowl under bond during this period, and South Carolina prohibited sale of protected game at any time and added regulations on the cold storage of game.

No additions were made to the list of States which have adopted the license system, but changes in license laws occurred in Louisiana, British Columbia, New Brunswick, and Nova Scotia. Louisiana reduced the nonresident fee from \$25 to \$15, and established a \$10 resident market hunting license.

Increases in the warden service were made in Massachusetts, New York, and Oklahoma. Massachusetts authorized its deputy wardens to search without warrant, and intrusted the disposition of confiscated game to the game commission. New Brunswick extended the right of search and also the authority of the surveyor general in making regulations. In Louisiana the warden service was completely reorganized and the jurisdiction of the Board of Game Commissioners extended to include oysters, shellfish, and terrapin. In South Carolina the office of chief game warden was provided to perform the duties hitherto undertaken by the Audubon Society. Among the miscellaneous provisions was the passage of a resolution at the special session of the Legislature of Illinois requiring the attorney general to report to the senate at the next regular session in regard to the constitutionality of the law providing a State game fund. This action is destined to have a far-reaching effect not only in Illinois but in other States. Mention should also be made of the prohibition in Louisiana of the liberation of imported game birds without authority from the Board of Game Commissioners, and the use of the silencer in hunting deer. Massachusetts authorized the publication of a special report on the game birds of the State and Vermont established the office of State ornithologist. New Jersey prohibited the use of ferrets in hunting rabbits and New York repealed a similar law. Massachu-

setts permitted the use of motor boats, if at anchor, in hunting waterfowl, while New Brunswick prohibited their use at any time for such hunting.

Among the retrograde measures of the year may be mentioned the opening of a season on robins, blackbirds, and gulls in Louisiana, and the permitting of dove shooting in July in Mississippi.

DECISIONS OF THE COURTS.

The decisions of the courts in 1910 were somewhat more numerous than those of the previous year, but involved few novel points. One of the most important was that of the United States circuit court of appeals for the eighth circuit, rendered on March 5 in the case of *Rupert v. United States* (181 Fed., 87). On February 27, 1907, Paris N. Rupert was indicted in the United States district court for delivering a large number of quail to the Frisco and Rock Island Railroad Cos. for shipment from Oklahoma to Chicago, in violation of the act of May 25, 1900, and was found guilty. The case was appealed to the United States circuit court of appeals, and in rendering the decision the court not only sustained the game law of Oklahoma, but upheld the provisions of the Lacey Act prohibiting the shipment of game out of the Territory in violation of Territorial law and the interstate shipment of game in unmarked packages.

California.—A decision of interest to owners of private preserves is that of the court of appeals of the second district, in the case of *Guaranty Realty Co. v. Recreation Gun Club* (107 Pac., 625). The Recreation Gun Club, of Los Angeles County, had acquired title to some 340 acres of land, 120 of which was sold in May, 1904. The conveyance of the land sold contained a provision that the use of firearms on the premises should be forever prohibited, and that the grantees agreed, on behalf of themselves, their heirs and assigns, and all persons claiming through or under them, to observe and enforce this provision. The suit was brought to declare this provision void. In rendering its decision the court recognized as property and entitled to protection the exclusive right to hunt on game preserves; and held that the destruction or impairment of the privilege by driving away the birds constitutes an injury which can not be estimated in money, and on account of which an injunction will lie; and that a restrictive covenant in a deed providing that the use of firearms on the premises shall be prohibited is not void, either as unreasonable or in violation of the right of a citizen to bear arms.

Colorado.—The decision in *Bartlett v. O'Mahoney* (107 Pac., 219) marks the close of the long litigation involved by the destruction of the herd of buffalo in Lost Park in 1897. In 1903 the appellant, Charles A. Bartlett, began a suit in replevin in the district court of Lake County against the sheriff of the county to recover possession

of the heads and hides of four buffalo. Judgment was rendered for the defendant and the plaintiff appealed to the supreme court. The judgment of the lower court was affirmed and later in the year, as already stated, the skins were sold by the State.

Florida.—On January 10 the supreme court of Florida rendered a decision (*Harper v. Galloway*, 51 S., 226) in habeas corpus proceedings instituted by Noah Harper, who had been arrested by Galloway, sheriff of Marion County, for violation of the provisions of the local law requiring nonresidents of Marion County to pay a special tax to hunt. The case is of special interest as the first game case to reach the supreme court of Florida. In rendering its decision the court held in effect that while the legislature may enact special or local laws for the protection of game, such regulations must affect alike all persons similarly situated, and that this law denied residents of other counties equal protection, was in violation of the fourteenth amendment of the Constitution of the United States, and was therefore inoperative as to residents of Florida. It is interesting in this connection to note that in the adjoining State of Alabama the first case under the game laws carried to the supreme court also involved a local law regarding hunting by nonresidents and was decided as early as 1851.

Illinois.—In *People v. Sayer* (92 N. E., 900) the supreme court of Illinois upheld the constitutionality of the law requiring hunters to obtain permission before hunting on private lands. The plaintiff in error had been found guilty in a trial before a magistrate of hunting on the lands of another without permission. He appealed to the circuit court on the ground that the law requiring permission was in violation of the constitution of Illinois; that it was special legislation, and that it was also in violation of the fourteenth amendment of the Constitution of the United States. The circuit court and the supreme court both sustained the original verdict.

Iowa.—In *State v. Carson* (126 N. W., 698) the supreme court of Iowa rendered an important decision in a case involving the shipment of prairie chickens out of the State, and construed the word "ship" in the statute, holding that delivery to an express company for transportation and delivery to a commission firm in Chicago constituted a violation of the statute prohibiting shipment out of the State, notwithstanding the fact that the package was seized before the train on which it was loaded had actually left Iowa.

Michigan.—A decision under the fish laws of Michigan in *People v. Setunsky* (126 N. W., 844) deserves mention, as the court was required to pass upon a law licensing and regulating commercial fishing by means of power and sail boats. The court held that such regulation was not unconstitutional as class legislation, and that the legislature had full power to regulate the taking of fish and game within the State, in the waters which it owns, as to time, place, and

method; and reaffirmed its former holding that such regulation is not an interference with interstate commerce.

Mississippi.—An interesting decision (*State v. Hill*, 53 S., 411) was rendered by the supreme court of Mississippi, following somewhat the same lines as that of Florida in declaring unconstitutional an order of the county board of supervisors prohibiting nonresidents from fishing or hunting except on their own land. The defendant, a resident of Lee County, fished in Twenty Mile Creek, in Itawamba County, in violation of the order of the board of supervisors of the latter county. When the case was appealed to the supreme court the court held that the local ordinance was contrary to the fourteenth amendment of the Constitution of the United States.

New York.—Three decisions of the appellate division of the supreme court merit mention, although likely to be carried to the court of appeals. In *Overton v. Williams* (123 N. Y. S., 758) two game protectors having secured evidence of violations of the game law by the same person agreed to merge their evidence and prosecute the larger claim, on the understanding that the protector's fee (one-half the fine recovered) should be divided. The defendant, whose case it was that was prosecuted, refused to abide by the agreement. The court held that the plaintiff's forbearance for the benefit of the defendant established sufficient consideration for the defendant's promise to divide the recovery, and that the contract was not against public policy.

In *People v. Redwood* (125 N. Y. S., 848) action was brought against John Redwood, manager of the Rockefeller preserve, for permitting a fox hound to run at large in the Adirondack Park while hunting foxes. The defense contended that the anti-hounding law of 1901 was unconstitutional because it prevented the hunting of foxes and other destructive animals, and the contention was sustained by the Franklin County court; but this decision was reversed by the appellate court and a new trial ordered.

People v. Harrison Street Cold Storage Co. (122 N. Y. S., 1002) is chiefly interesting from the fact of the large penalties involved. The action was brought to recover the sum of \$147,435 for having in cold storage during the close season certain barrels, boxes, and kegs containing game without having given bond. The defendant moved to amend its answer by pleading, as a separate defense, the previous recovery of penalties against its customers for the possession of the game in question and by further alleging that the game was received and stored in the names of its customers, who had delivered it in sealed packages marked as containing "domestic fowls" and without notice of the fact that such packages actually contained game birds, and that the defendant believed that the packages

were correctly labeled, and had no authority to open and inspect them. The motion was granted by the court on payment of the costs.

Oklahoma.—An important decision involving the game-protection fund of Oklahoma was passed upon by the supreme court of that State in *Menefee v. Askew* (107 Pac., 159), the State treasurer having raised the question as to the payment of the expenses of the warden's office from the game-protection fund. The court held that the section in the game law providing that certain moneys should be paid to the State treasurer and placed in the game-protection fund of the State, from which fund salaries and expenses of the warden department were to be paid, did not constitute a valid appropriation. Consequently the fund could not be utilized until a direct appropriation had been made by the legislature. The active work of game protection was greatly handicapped until the legislature at the extra session of 1910 passed a bill appropriating \$7,176.33 to reimburse the warden for the necessary expenses of his department.

Oregon.—In *Salene v. Isherwood* (106 Pac., 18) the court held that a grant of a right to shoot waterfowl on certain waters, together with the right of passage to and from such waters, included the right to maintain boats and temporary structures not interfering with the use of the grantor's adjoining farm, and also included the use of blinds, decoys, and the keeping of bird dogs.

Pennsylvania.—In *Commonwealth v. McComb* (76 Atl., 100) the supreme court of Pennsylvania on March 7 sustained the constitutionality of the Pennsylvania law of 1907 restricting the use of automatic guns for killing game. The decision is notable, as the Pennsylvania statute is the only one thus far enacted in the United States restricting the use of the automatic gun and the case is one of the few, involving the right to regulate the kinds of guns for hunting game, which have reached the higher courts.

CHRONOLOGICAL RECORD OF GAME PROTECTION FOR 1910.

This year, for the first time, a chronological record of events relating to game protection during the year is appended in the hope that it will be found serviceable.

January 13.—First decision on a game law by the supreme court of Florida (Harper v. Galloway).

January —.—Meeting of Michigan wardens.

January 17-19.—Arrest of 23 Japanese poachers on Laysan and Lisiansky Islands, in the Hawaiian Island Reservation, and seizure of about 259,000 wings and other plumage.

January 25-26.—Annual meeting of New York State game protectors at Albany.

January 26.—Resolution passed by the Illinois Senate calling on the attorney general of Illinois to give written opinion as to the legality of expenditure of money in State game fund.

February 5.—Meeting of the National Association of Game Commissioners and Wardens at New Orleans, La.

February 9.—Meeting of the North American Fish and Game Protective Association at Philadelphia, at which was considered a resolution recommending a treaty between the United States, Canada, and Mexico for the extradition of game-law violators.

February 17.—Passage of bill in South Carolina creating the office of chief game warden.

March 5.—Decision by the United States Circuit Court of Appeals sustaining the validity of the nonexport law of Oklahoma, and construing the provisions of the Lacey Act prohibiting export of game killed in violation of local laws, and requiring the marking of packages of game shipped in interstate commerce.

March 7.—Decision by the supreme court of Pennsylvania sustaining the constitutionality of the law prohibiting the use of automatic guns.

March —.—Visit by governor and State game warden of Wyoming to Jackson Hole to examine into the condition of elk, reported to be starving.

March 21.—Introduction of the Broussard bill in Congress, appropriating \$250,000 for the acclimatization of the hippopotamus, buffalo, and other big game from Africa.

April 2.—Restocking of the Big Horn State Game Preserve, Wyoming, with elk from Jackson Hole.

April 7.—Approval of a general bag limit bill in Maryland, the first legislation of the kind adopted by the State.

May 7.—Approval of the Shea plumage bill in New York, to take effect July 1, 1911, prohibiting the sale of aigrettes and certain other plumage.

May 11.—Passage of the act of Congress establishing the Glacier National Park.

June 4.—Fifth International Ornithological Congress, at Berlin, and appointment of two representatives of the United States on the international committee for the protection of birds.

June —.—Fine of \$4,929 imposed by supreme court of New York for possession of 30 cans of Spanish partridges.

June —.—Retirement of Z. T. Sweeney after 11 years of continuous service as fish and game commissioner of Indiana.

July 4.—Retirement of L. T. Carleton from the Maine Commission of Inland Fisheries and Game after 14 years service.

July —.—Reorganization of the Louisiana Board of Commissioners for the Protection of Birds, Game, and Fish.

July 7.—Establishment of two State game preserves in Louisiana.

July and August.—Extensive forest fires in the Northwest.

September —.—Establishment of an effective warden force of 500 men in Louisiana.

September —.—Change in office of Forest, Fish and Game Commissioner of New York by resignation of James S. Whipple and appointment of H. Leroy Austin.

September 5-8.—Meeting of the National Conservation Congress in St. Paul, and adoption of resolution favoring conservation of migratory birds.

September 14.—Meeting of the Michigan Association for the Protection of Game, at Owosso, Mich.

September —.—First conviction in any court for having a gun silencer in possession. (Nonresident fined in Maine.)

October 4.—Important meeting of the Missouri game wardens at Sedalia, Mo.

October 10.—Decision of the superior court of Pennsylvania upholding the constitutionality of the law prohibiting aliens from possessing firearms.

October —.—Annual examination of Wisconsin State civil service commission for the position of deputy game warden.

October 25.—Annual meeting of the National Association of Audubon Societies in New York.

October 28.—Decision by the supreme court of Illinois that a law requiring permission of owner or tenant before hunting on his land is constitutional.

November —.—First attempt to use aeroplane in shooting game—at Bolsa Chica, Cal.

November 14-17.—Annual meeting of the American Ornithologists' Union in Washington, D. C.

November 21.—Opening of first season for hunting deer in Massachusetts for a number of years.

December 7.—Arrival at New York of a consignment of 11,661 birds, one of the largest single shipments ever imported.

December 8-9.—Meeting of the New York Forest, Fish, and Game League at Syracuse.

December 15.—Transfer of antelope from the Yellowstone National Park to the Montana Bison Range and the Wichita Game Preserve.

Approved.

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., *April 24, 1911.*

[Cir. 80]

